



For Immediate Use

Provided by Jeff Miller, VCH
Virginia Green Industry Council
383 Coal Hollow Rd., Christiansburg, VA 24073-6721

540-382-0943, Info@VirginiaGreen.org

Electronic Version: www.viriniagreen.org

Do you want to help the environment?

Do you want a green lawn next summer?

Do you want to mow less next summer?

Do you want less disease, insect and weed problems, reducing the need for pesticide applications?

“Fertilizing your lawn at the proper time this fall will answer these questions and you’ll have more sustainable lawn next year” says Lin Diacont, President of the Virginia Green Industry Council.

What if I don't fertilize?

Your lawn will gradually thin and weeds may invade. Proper and timely fertilization can be good for both your lawn and the environment. There is less chance for nutrient and soil runoff to surface waters from a healthy stand of grass than bare soil or thin grass. Healthy lawns will have less disease, insect and weed problems, reducing the need for pesticide applications. Well-maintained lawns look appealing and are more wear tolerant.

Fall Fertility Strategies for Virginia’s Home lawns

There are some definite do’s and don’ts when it comes to fertilizing Virginia’s home lawns in the fall, primarily in terms of appropriate timing for the many grasses that are grown in this state. This article discusses fertility programs for cool- and warm-season grasses that will promote the health and quality of your turf, as well as protecting the environment.

Timing is everything. Fall is the OPTIMAL time to aggressively fertilize cool-season turfgrasses (bluegrasses, fescues, and ryegrasses). Cooling (but still warm) temperatures and shorter days are ideal conditions to maximize root growth and food storage in cool-season turfgrasses. The period from September through November is the time of year to deliver the annual nitrogen (N) fertilization requirement, so don’t miss the chance to optimize your turf quality as well as its health.

For warm-season grasses (bermudagrass, zoysiagrass, centipedegrass, and St. Augustine grass), fall is a time to prepare the turf for winter dormancy. Refrain from additional N applications and ensure your soil test indicates appropriate pH, phosphate (P), and potash (K) levels as you put the turf to bed for its winter nap.

Never forget the value of soil testing. Anytime is the right time to soil test, but fall and winter months are ideal periods to modify your soil during a period when plant growth is significantly slowing. If you have not done so within the past 3 years, perform a soil test to bring your lawn up to speed in terms of pH and major nutrient levels. You can use your local Virginia Cooperative Extension (VCE) office for the materials and assistance with the test, which you can lookup at www.ext.vt.edu/offices/ or in your local phone directory in the blue local government pages listed under “Extension Service” or “Virginia Cooperative Extension”. You can also arrange to have a test done through a private lab through a local lawn and garden center – ask for a Virginia Certified Horticulturist.

A full discussion on the steps in conducting a test and interpreting the results is available in a Breeze presentation entitled “Soil Testing for the Lawn and Landscape” found at <http://connect.ag.vt.edu/p36588349>

Fertilizer choices. There are lots of things to consider in fertilizer selection. First, what’s in the bag? Left to right, the numbers on the fertilizer bag indicate the percentage of nitrogen (N), phosphate (P), and potash (K) on a weight basis. Hence, a 50 lb bag of 10-10-10 contains 5 lbs each of N, phosphate, and potash (and even for liquid fertilizers,

the analysis still represents % by weight). Next, look at the fertilizer label for some additional information on precisely what other nutrients are contained in the bag, and perhaps most importantly, what type of release characteristics the N has. If the source contains slow release N, you will see a reference to a certain percentage of WIN (water insoluble nitrogen) on the label. Many synthetic turf fertilizers purchased right off the garden center shelves contain between 20-30% WIN. These predominantly water soluble sources can be safely applied at levels up to 1 lb N/1000 sq ft. according to the grass and the season. Most organic manure-based fertilizers can contain up to 75-85% WIN. These materials can be applied at levels up to 1.5 lbs N/1000 sq ft and will provide very sustained growth and color responses with minimal potential for environmental impact. However, most are very low analysis (only 5-8% N by weight) and very large amounts of product are needed if trying to apply normal N-use levels. Used properly, almost any source of N can promote desirable turf responses with little if any environmental impact; it's the user, not the fertilizer, who creates the problems.

Recommended N levels and timing. The Virginia Department of Conservation and Recreation has an excellent tri-fold brochure entitled "Keep Your Lawn Green and the Bay Clean" - (http://www.dcr.virginia.gov/soil_&_water/documents/lawntips.pdf) - that details recommended N levels and timing for our major lawn grasses. Essentially, the information reemphasizes the facts that N applications are highly beneficial on cool-season grasses in the fall and only minimal N should be applied in the spring. Warm-season grasses should be aggressively fertilized after complete greening in mid-late spring through mid-summer. Seasonal N totals range from 2-4 lbs N/1000 sq ft depending on the grass species.

What about other nutrients? Any nutrient that is deficient will limit growth of our turf and landscape plants, so apply them as indicated by soil tests. However, it is very important that we pay attention in particular to phosphorus applications since it is known to be a major contributor to water pollution when mis- and/or over-applied. The days of using a complete fertilizer such as 10-10-10 should be over when we have fertilizers specifically developed for turf use that emphasize N and minimize phosphorus. Standard turf fertilizers will have N labels of 23-30%, 3-5% phosphate, and 5-15% potash.

A popular fertilizer analysis for many fall cool-season programs that is on the lawn and garden center shelves is a "Winterizer" formulation of 22-3-14. This is good, but better still, would be to use an N-only fertilizer source (for example urea, 45-0-0) when you have no need for phosphate or potash. For warm-season grasses, research has shown that ample soil potash levels promote winter hardiness. (Note: K is required by cool-season grasses, but research has shown that the most important component of winter performance in these species is an appropriate N fertility program.) However, in the 22-3-14 "Winterizer" formulation just mentioned, there would be excessive N applied to the turf. If your soil test indicates the need for potash, you can purchase potash-only sources such as 0-0-50 and 0-0-60 at most specialty lawn and garden centers. Remember if your turf needs potash, apply it BEFORE the turf goes dormant.

Think about "non-target" effects of your fertilizer. Consider where your fertilizer ends up after the application. Your turf serves as an excellent filter of chemicals, nutrients, and water, but it is obviously important to apply these resources TO the turf. If your fertilizer ends up on the street, sidewalk, or patio, take an additional few moments to sweep or blow the fertilizer back into the turf canopy. Any granular material sitting on a hardscape is only minutes away from entering our lakes and streams when we have our next rainfall.

I hope this information and the extension publication links make it easier for you to make informed decisions in fall fertilization. For further information, please consult your local Virginia Cooperative Extension office. For an extensive online help and FAQ, go to www.VTturf.com and click on the "Extension" on the main menu under "publications".

For information by podcast, go to http://www.weblogs.cals.vt.edu/turf_garden/

For additional details on lawn turfgrass management, see these publications:

Lawn Fertilization in Virginia - Pub 430-011 <http://www.ext.vt.edu/pubs/turf/430-011/430-011.html>

Home Lawn Fertilization in VA: FAQ - Pub 430-003 <http://www.ext.vt.edu/pubs/turf/430-003/430-003.html>

Adapted from Virginia Tech Cooperative Extension publications and podcasts by Dr. Mike Goatley, Virginia Tech Turfgrass Extension Specialist and Jeff Miller, Virginia Certified Horticulturist and Executive Director of the Virginia Green Industry Council. The Virginia Green Industry Council is the voice of the horticulture industry in the Commonwealth and is dedicated to enhancing the beauty of the state's environment, the well-being of our citizens, improving our state's economy, and improving the health and wellness for everyone in Virginia. The Council is made up of providers and consumers of horticultural products and services. The Council works to provide public and industry education, environmental guidelines and other information that will keep Virginia green and growing. For more information, visit www.virginiagreen.org ; 540-382-0943E-mail: info@virginiagreen.org